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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/920,554	08/01/2001	Graeme John Proudler	B-4240 618934-9	4232

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EXAMINER

DAVIS, ZACHARY A

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/920,554	Applicant(s) PROUDLER, GRAEME JOHN	
	Examiner Zachary A. Davis	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>See Office Action</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A response was received on 07 April 2006. No claims have been amended, added, or canceled. Claims 1-29 and 31 are currently pending in the present application.

Response to Arguments

2. Applicant's arguments filed 07 April 2006 have been fully considered but they are not persuasive.

Claims 1-6, 14-26, 29, and 31 were rejected under 35 U.S.C. 103(a) as unpatentable over McNabb, US Patent 6289462, in view of England et al, US Patent 6327652, and Claims 7-13, 27, and 28 were rejected under 35 U.S.C. 103(a) as unpatentable over McNabb in view of England, and further in view of "HP Virtualvault Trusted Web-Server Platform Product Brief" ("Virtualvault").

In reference to Claim 1, Applicant argues that there is no motivation to combine the references, that there is "no reasonable expectation that a person of ordinary skill could combine the references in any meaningful way", and that the suggested combination does not anticipate the claims (see page 4 of the present response).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention

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where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation is to be found in England, as cited in the previous Office action, namely to guarantee the ability to distinguish between trusted and non-trusted systems executing on the same computer (see England, column 3, lines 56-61).

In response to the statement that there is “no reasonable expectation that a person of ordinary skill could combine the references in any meaningful way”, the Examiner notes that this is not actually the test set forth in the MPEP as quoted on page 3 of the present response. Rather, the criterion is whether there is a “reasonable expectation of success”. The Examiner believes that because both the McNabb and England references are directed to secure and/or trusted operating systems, and are therefore analogous art, there would be a reasonable expectation that one would be successful in combining features from the two systems.

In response to Applicant’s argument that neither England, McNabb, nor “any reasonable combination of the two” suggests the claimed limitation of “a requestor providing a specification of a service to be performed to the computing platform, wherein the specification of service establishes specified levels of trust for at least one of the processes in the service” (page 4 of the present response), the Examiner respectfully disagrees. The Examiner notes that both McNabb and England at least suggest a requestor providing a specification of a service to be performed (see

McNabb, as cited, column 19, line 55-column 20, line 2; see also, for example, England, column 9, lines 42-51, noting that a requestor provides a specification of a service, namely the downloading of specific content) and that England, at least, suggests that levels of trust are specified for at least one process (see England, column 19, lines 13-40, where trust levels specifying required functions to access certain content or processes are specified in an access control list).

The Examiner notes that other assertions and statements made by Applicant do not appear to be supported by specific citations from the references or elsewhere (see, for example, the second and third paragraphs on page 3 of the present response, noting the Applicant states that England "seems to say", or in the first full paragraph on page 5 of the present response, where Applicant states that England "seems to suggest") and are therefore not persuasive as evidence.

The Examiner further notes that Applicant has only presented arguments regarding independent Claim 1, and has only explicitly traversed the rejection of Claims 1-6, 14, 26, 29, and 31 (see page 2 of the present response). The Examiner further notes that 37 CFR 1.111(b) requires that replies to an Office action must reply to every ground of objection and rejection in the prior Office action, and that the reply must present arguments pointing out the specific distinctions believed to render the claims, including any newly presented claims, patentable over any applied references. Even assuming that the traversal was intended to cover the rejections of all claims rejected as unpatentable over McNabb in view of England (namely, Claims 1-6, 14-26, 29, and 31), there is no reply to the rejection of Claims 7-13, 27, and 28, and further no arguments

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have been presented regarding claims other than independent Claim 1. However, as this appears to be a *bona fide* attempt at advancing the application, and further because Applicant objects to alleged delays in the prosecution of the application as noted below, the present response has been considered as fully responsive under 37 CFR 1.111 in order to advance the prosecution of the present application.

The Examiner additionally notes that Applicant alleges that, contrary to the guidelines of MPEP §§ 707.07(a) and (g), the Examiner is engaging in piecemeal examination of the application, because the Examiner allegedly delayed making “the best rejection the Examiner can make”, namely McNabb in view of England, finding evidence for this allegation in the fact that both pieces of art were cited as early as the Office action mailed 02 February 2005. The Examiner respectfully disagrees with this allegation. First, the Examiner notes that MPEP § 707.07(a) is not directed to piecemeal examination. Further, the Examiner notes that, although England was considered relevant to the present application, a rejection under 35 U.S.C. 102(e) of Claims 1-6, 14-26, 29, and 31 was considered the best rejection that could be made (noting that an anticipation rejection would be considered a “better” rejection than an obviousness rejection). Only after consideration of Applicant’s arguments, particularly those presented in the interview of 02 November 2005 and the response received 08 November 2005, the Examiner determined that it would be appropriate to withdraw the rejections under 35 U.S.C. 102(e); however, upon further consideration of the prior art, the Examiner also determined that Claims 1-6, 14-26, 29, and 31 were unpatentable

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over McNabb in view of England and therefore those claims were rejected under 35 U.S.C. 103(a).

Therefore, for the reasons detailed above, the Examiner maintains the rejections as set forth below.

Information Disclosure Statement

3. The information disclosure statements received 19 December 2005, 09 February 2006, 16 February 2006, and 01 March 2006 have been considered.

Specification

4. The objection to the abstract is not withdrawn. Although the abstract has been reduced to a single paragraph and less than 150 words, the Examiner reminds Applicant that the form and legal phraseology often used in patent claims should be avoided in the abstract.

5. The Examiner notes that this objection has not been addressed or acknowledged in the present response, nor was it addressed or acknowledge in the response received 08 November 2005. The Examiner again notes that 37 CFR 1.111(b) requires that Applicants' response replies to every ground of objection and rejection in the prior Office action.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6, 14-26, 29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNabb, US Patent 6289462, in view of England et al, US Patent 6327652.

In reference to Claims 1 and 2, McNabb discloses a method including a requester providing a specification of a service to be performed that establishes required sensitivity levels for processes in the service (see, for example, column 19, line 55-column 20, line 2, where different processes are specified for different sensitivity levels) and a computing platform executing the service according to the specification (see the Trusted Server of Figure 1, and column 5, lines 20-29) and logging performance of the processes and providing the log to the requestor (the audit trail described at column 7, lines 28-33). However, although McNabb discloses sensitivity levels that describe required security (column 8, lines 33-37 and 10-15) and that there is a trusted computer system (column 8, lines 40-45), McNabb does not explicitly disclose details of establishing the trust in the computer system, nor does McNabb explicitly disclose levels of trust.

England discloses a method in which an operating system is securely loaded where each component of the system is associated with a trust level (column 4, lines 5-11) and each application is also determined to be trusted or non-trusted (column 9, lines 11-20). England also discloses a requester providing a specification of a service to be performed that establishes required trust levels for processes in the service (column 9, lines 42-51; column 19, lines 13-40). England further discloses logging performance (see, for example, column 4, lines 18-23). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of McNabb to incorporate levels of trust as taught by England, in order to guarantee the ability to distinguish between trusted and non-trusted systems executing on the same computer (see England, column 3, lines 56-61).

In reference to Claim 3, McNabb further discloses a protected computing environment (see Figure 1).

In reference to Claims 4 and 23, McNabb further discloses measuring integrity of the platform (see column 8, lines 40-45, regarding the trusted computer system). England also discloses monitoring integrity (see, for example, column 12, lines 53-65).

In reference to Claim 5, McNabb further discloses a management process that allocates the execution of processes and logging to environments associated with the platform (see column 21, lines 34-55).

In reference to Claim 6, McNabb further discloses the management process within the protected environment (see column 21, line 34-column 22, line 2).

In reference to Claim 14, McNabb further discloses that a process may be swapped between environments (see column 11, line 66-column 12, line 14).

In reference to Claims 15-20, McNabb further discloses logging input data, output data, and executed program instructions of a process (see column 7, lines 28-33; column 23, lines 26-35).

In reference to Claim 21, McNabb further discloses encrypting the logging data (column 23, lines 26-35, where the audit record is protected).

In reference to Claim 22, McNabb further discloses the specification of the service establishing logging parameters for the processes (column 23, lines 26-35).

In reference to Claim 24, McNabb discloses a platform including a protected computing environment (see Figure 1) and one or more compartments (column 17, lines 9-14), in which processes may be executed for a user in the compartments and the results of the processes may be returned to the user as trustworthy data from the protected environment (see, for example, column 6, lines 20-23), and where the platform further includes a management process that receives a service description including required sensitivity levels for processes within the service (see, for example, column 19, line 55-column 20, line 2, where different processes are specified for different sensitivity levels) and that allocates the processes to the compartments (column 21, lines 34-55). However, although McNabb discloses sensitivity levels that describe required security (column 8, lines 33-37 and 10-15) and that there is a trusted computer system (column 8, lines 40-45), McNabb does not explicitly disclose details of

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establishing the trust in the computer system, nor does McNabb explicitly disclose levels of trust.

England discloses a system in which an operating system is securely loaded where each component of the system is associated with a trust level (column 4, lines 5-11) and each application is also determined to be trusted or non-trusted (column 9, lines 11-20). England further discloses receiving a service description including required trust levels for processes in the service (column 9, lines 42-51; column 19, lines 13-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the platform of McNabb to incorporate levels of trust as taught by England, in order to guarantee the ability to distinguish between trusted and non-trusted systems executing on the same computer (see England, column 3, lines 56-61).

In reference to Claim 25, McNabb further discloses that the compartments may be located outside the protected environment (Figure 12; column 17, lines 57-61).

In reference to Claim 26, McNabb further discloses that the compartments may be located inside the protected environment (Figure 12; column 17, lines 57-61).

In reference to Claim 29, McNabb further discloses measuring integrity of the platform (see column 8, lines 40-45, regarding the trusted computer system). England also discloses monitoring integrity (see, for example, column 12, lines 53-65).

In reference to Claim 31, McNabb further discloses the management process within the protected environment (column 21, line 34-column 22, line 2).

8. Claims 7-13, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over McNabb in view of England as applied to claims 5 and 24 above, and further in view of "HP Virtualvault Trusted Web-Server Platform Product Brief", hereinafter "Virtualvault".

In reference to Claim 7, McNabb as modified by England discloses everything as applied to Claim 5 above. McNabb further discloses the use of compartments (see, for example, column 17, lines 9-14). However, McNabb does not explicitly disclose that the compartment contains a protected computing engine, nor does England. Virtualvault discloses a computing platform that includes the use of compartments, which include protected computing engines (see page 3, "Data Partitioning Separates and Secures Files"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of McNabb and England to include compartments containing protected computing engines, in order to provide security for web servers (see Virtualvault, page 2, "Virtualvault: The Answer to Secure Access").

In reference to Claim 8, Virtualvault further discloses a Java virtual machine (see page 4, "A 'Vaulted' Java Virtual Machine").

In reference to Claim 9, McNabb further discloses that one or more compartments are located in the protected environment (see Figure 12; column 17, lines 57-61). Further, Virtualvault further discloses that one or more compartments are located within the protected environment (see page 3, the INSIDE compartment).

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In reference to Claim 10, McNabb further discloses that the computing engine is prohibited from operating on input data if it is not permitted to do so (see column 8, lines 10-15 on Mandatory Access Control).

In reference to Claim 11, McNabb further discloses that input data and processes are each provided with a type, and that the operation is prevented if the types do not match (see column 8, lines 10-15 on Mandatory Access Control).

In reference to Claims 12 and 13, McNabb further discloses that the input data may have an owner, and that the process may be required to inform the owner of the use of the data or to obtain consent from the owner to use the data (see column 8, line 54-column 9, line 4).

In reference to Claims 27 and 28, McNabb as modified by England discloses everything as applied to Claim 24 above. However, McNabb does not explicitly disclose that the compartment contains a protected computing engine, specifically a Java virtual machine, nor does England. Virtualvault discloses a computing platform that includes the use of compartments, which include protected computing engines (see page 3, "Data Partitioning Separates and Secures Files"). Virtualvault further specifically discloses a Java virtual machine (see page 4, "A 'Vaulted' Java Virtual Machine"). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of McNabb and England to include compartments containing protected computing engines, specifically Java virtual

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machines, in order to provide security for web servers (see Virtualvault, page 2, "Virtualvault: The Answer to Secure Access").

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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